REMARKS

Claims 1-25 were pending in the Application prior to the outstanding Office Action. With this Amendment, claims 1-31 remain in the case.

In the Office Action, the Examiner objected to claims 1, 19, 20 and 22, and rejected claims 1-8, 12-20 and 25 on prior art. Claims 9-11 and 22-24 were rejected solely as being dependent on a rejected base claim.

I. CLAIM OBJECTIONS

The Examiner has objected to claims 1, 19, 20 and 22 because of certain informalities.

In claim 1, the Examiner objected to the phrase "particularly" as rendering the claim indefinite. The Examiner also objected to the misspelling of the word "interface".

Applicant has now deleted the "particularly" language in the claim and corrected the spelling of "interface".

In claim 20, the Examiner pointed out that a period is missing at the end of the claim. This has been corrected.

The Examiner objected to claims 19 and 22 on the ground that the phrases SPE and LPE regrowths (solid and liquid phase epitaxial regrowths) should be spelled out at least once.

It is believed the Examiner must be referring to claims 20 and 22, since claim 19 does not contain either of the abbreviations. Claims 20 and 22 have been amended herein to spell out "solid phase epitaxial" and "liquid phase epitaxial" as suggested by the Examiner.

Accordingly, it is believed that the claim objections have all been overcome.

II. ART REJECTIONS

The Examiner rejected claims 1-8, 12-20 and 25 as being anticipated by M. Orlowski, "New Model for Dopant Redistribution at Interfaces" (Applied Physics Lett., vol. 55, No. 17, October 1989). Applicant will respond to the rejection of independent claim 1, followed by the rejections of the dependent claims.

A. Independent Claim 1

Orlowski teaches a method for simulating dopant redistribution at an interface using an "interphase" layer 3 at the interface between two bulk phases 1 and 2. He models the time diffusion of dopant particles in both directions between the first bulk phase and the interphase,

and in both directions between the interphase and the second bulk phase, in order to calculate the final, steady-state distribution of dopant particles as time approaches infinity.

Orlowski does not, however, take into account any movement of the interface itself.

Applicants' claim 1, as amended, calls for, among other things:

> A method for determining the movement of particles in a medium, under the influence of a changing interface between two neighboring phases of the medium, comprising the steps of
>
> (a) Determining the spatial evolution of said interface over time; (emphasis added)

Thus the claim calls first for a step of determining the spatial evolution over time of the interface, between two neighboring phases of the medium in which the particles are moving.

Orlowski does not determine any evolution of any spatial characteristics of the phase interface itself over time. For example, Orlowski does not consider any movement of the position of the interface over time, nor any change in its range over time. While Orlowski considers his dopant particles to move over time, all spatial characteristics of the medium itself, once set at the beginning of the simulation, are considered to remain stationary to the end of the simulation. He does not teach any step of determining the spatial evolution of the interface over time.

Orlowski therefore fails to teach an element called for in Applicant's claim, and as a result it cannot anticipate.

Accordingly, claim 1 is believed to be patentable.

B. Dependent Claims 2-8, 12-20 and 25

These claims all depend ultimately from independent claim 1 and should therefore be patentable for at least the same reasons as independent claim 1. It is submitted that these claims also add their own limitations which render them patentable in their own right. Applicant has reviewed the grounds on which these claims were rejected in the Office Action and respectfully does not agree with them. However, Applicant does not believe it necessary to argue these points at this time because of the allowability of the independent claim. Applicant reserves the right to argue these points should it become necessary in the future.

Accordingly, claims 2-8, 12-20 and 25 are believed to be patentable.

III. ALLOWABLE CLAIMS

Claims 9-11 and 22-24 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant presumes that claim 21 belongs in this category as well since the office action contains no grounds for rejecting claim 21.

Applicant believes that these claims should now be allowable because of the allowability of independent claim 1.

IV. OTHER MATTERS AND CONCLUSION

The claim amendments not mentioned above are made to clarify them or to more particularly point out the invention, and are not made in response to any rejections in the Office Action.

The new claims are added to more particularly point out the invention.

The art cited in the Office Action but not applied has been reviewed, but Applicant does not believe they render the claims unpatentable either singly or in combination.

It is respectfully submitted that this application is now in condition for allowance, and such action is requested. If the Examiner believes a telephone conference would aid the prosecution of this case in any way, please call the undersigned at (650) 712-0340.

A Request for Extension of Time is submitted herewith, together with the appropriate fee.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (SYNP 0439-1).

Respectfully submitted,

Dated: 20 June 2006 /Warren S. Wolfeld/

Warren S. Wolfeld, Reg. No. 31,454

SYNOPSYS, INC. c/o HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 phone
(650) 712-0263 fax